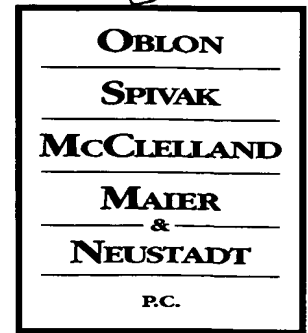




Docket No.: 205279US3X

COMMISSIONER FOR PATENTS
ALEXANDRIA, VIRGINIA 22313



ATTORNEYS AT LAW

RE: Application Serial No.: 09/821,069
Applicants: Katsuyuki SUZUKI, et al.
Filing Date: March 30, 2001
For: HOLE FORMING TOOL
Group Art Unit: 3711
Examiner: PIERCE, WILLIAM M.

SIR:

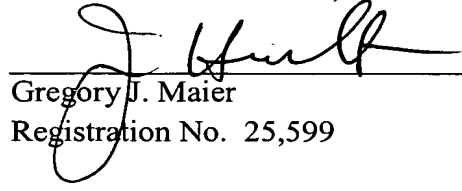
Attached hereto for filing are the following papers:

DECLARATION UNDER 37 CFR 1.132

Our check in the amount of \$0.00 is attached covering any required fees. In the event any variance exists between the amount enclosed and the Patent Office charges for filing the above-noted documents, including any fees required under 37 C.F.R. 1.136 for any necessary Extension of Time to make the filing of the attached documents timely, please charge or credit the difference to our Deposit Account No. 15-0030. Further, if these papers are not considered timely filed, then a petition is hereby made under 37 C.F.R. 1.136 for the necessary extension of time. A duplicate copy of this sheet is enclosed.

Respectfully submitted,

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DOCKET NO: 205279US3X



IN THE UNITED STATES PATENT & TRADEMARK OFFICE

IN RE APPLICATION OF :
KATSUYUKI SUZUKI, ET AL. : EXAMINER: PIERCE, WILLIAM M.
SERIAL NO: 09/821,069 :
FILED: MARCH 30, 2001 : GROUP ART UNIT: 3711
RCE FILED: SEPTEMBER 8, 2003 :
FOR: HOLE FORMING TOOL

DECLARATION UNDER 37 CFR 1.132

COMMISSIONER FOR PATENTS
ALEXANDRIA, VIRGINIA 22313

SIR:

I Katsuyuki SUZUKI hereby declare that I am one of the co-inventors of U.S. application serial no. 09/821,069. I further declare that I am Section Manager of the Development Section G of Mitsubishi Metals Corporation of 1-5-1, Ohtemachi, Chiyoda-ku, Tokyo Japan 100-8117, one of the co-assignees of the present application and that my experience in materials engineering is as follows:

April, 1990	Entered Mitsubishi Metals K. K. (now Mitsubishi Materials)
April 1991	Assigned to Gifu Factory, Production Division
November 1991	Transferred to Gifu Factory, Drill Division (engaged in product development)
July 1995	Assigned to Chuo Seiko K. K. (now Roytec), Hiroshima Factory (management and technology of gun drill production section)
August 1998	Returned to Gifu Factory (engaged in product development)
April 2001	Transferred to Gifu Factory, Development Section (management of Cutting Tools Development Section)
July 2002	Management of Application Engineer Section (concurrently)

I further declare that claim 1 as presently amended in the above-noted application claims a hole forming tool as follows:

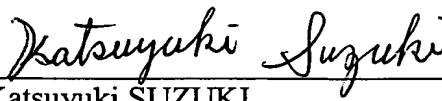
1. A hole forming tool which rotates around a rotational axis, comprising:
one or more chip discharging grooves which are helically formed around a rotational axis in an exterior surface of said hole forming tool, said chip discharging grooves having an inner surface; and
one or more cutting edges which are formed along ridge lines between inner surfaces of said chip discharging grooves, which are facing the rotating direction, and flank faces formed at an end of said hole forming tool,
wherein a radial rake angle of said cutting edges is set to a negative value in a range of -5° to -10° , a point angle thereof is in a range of 125° to 135° , a groove width ratio thereof is in a range of 0.9 to 1.1 and wherein a core diameter thereof is in a range of $0.38D$ to $0.42D$, wherein D comprises a cutting edge diameter of said hole forming tool.

As noted above, an important limitation of the claimed invention is that the core diameter of the tool is in a range of $0.38D$ to $0.42D$, as discussed on page 7, lines 14-23 of the specification. I further declare that I have conducted an experiment to ascertain the influence of the thickness (diameter) of the core on cutting efficiency in machining a high-hardness member, the results of which are attached hereto to help confirm that stable cutting efficiency can be obtained by making the thickness (diameter) of the core be in the range of $0.38D$ -to $0.42D$, as claimed, wherein D comprise the cutting edge diameter of the hole forming tool.

I further declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements in the likes made

are punishable by fine or imprisonment are both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Respectfully submitted,


Katsuyuki SUZUKI

Date: 2004 / 04 / 26

Enclosure: Attachment A (pages 1-7)
I:\ATTY\JDH\205279.DEC.DOC